

Philips, MIT collaborate on critical care patient data

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Philips will be granting access to data from more than 100,000 patients that have been collected and anonymized through the Philips Hospital to Home eICU telehealth program.

The Laboratory of Computational Physiology within the MIT Institute for Medical Engineering and Science will serve as the academic research hub for the initiative, and will provide and maintain access, as well as help educate researchers on the database and offer a platform for collaboration.

Most inpatient multi-center data sets available to researchers today are limited to insurance claims data, which offers just a summary of a patient's stay.

Through this new initiative, Philips will release a more comprehensive look at the ICU patient's journey by opening up data sets from patient stays in eICU centers representing approximately 10 percent of all adult ICU beds in the United States.

The secure database will include anonymized and detailed clinical data such as vital signs, pharmacy medication orders, laboratory results, diagnoses and severity of illness scores, giving researchers comprehensive insights into a patient stay.

"Researchers are always looking for better, more accurate and comprehensive data that enables a holistic representation of the patient experience," said Mr Leo Anthony Celi of MIT. "The quality and resolution of the data Philips has been collecting in the critical care domain is unprecedented. This kind of access will provide researchers with data that will enable investigations otherwise unimaginable."

The data will be available to researchers via PhysioNet before the end of the year.

PhysioNet offers free web access to large collections of physiologic signals and related open-source software.

Investigators will be able to contribute to the expanding knowledge base by sharing their methodologies and findings with the larger research community to facilitate faster discoveries in the future.

"We're proud to be leading the charge in the industry by opening up our data to independent researchers to allow them to conduct more meaningful analyses related to critical care medicine," said Mr Derek Smith, senior vice president, Hospital to Home, Philips Healthcare. "This initiative will make it easier for researchers to share methods and findings, bypassing the need to reinvent the wheel with each new research project. We hope this will lead to better, faster breakthroughs-and ultimately better medicine."

The data set is compiled from records shared by hundreds of ICUs across the United States, and is managed by the Philips eICU Research Institute.

This is one of the most extensive ICU-centric longitudinal data sets in existence and has been used by participants in the Philips eICU Research Institute to produce valuable peer-reviewed critical care research.